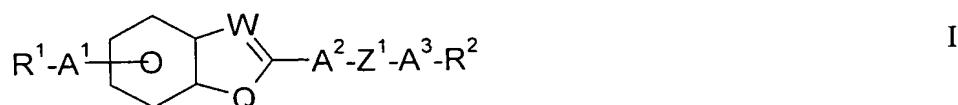


This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Original) Polymerizable, luminescent compounds of formula I



wherein

$R^1, R^2$  are independently of each other H, halogen,  $NO_2$ ,  $CN$ ,  $NCS$ , straight chain, branched or cyclic alkyl with 1 to 25 C-atoms wherein one or more  $CH_2$  groups may also be replaced by  $-CO-$ ,  $-O-$ ,  $-S-$ ,  $-NR^0-$ ,  $-CH=CH-$ ,  $-C\equiv C-$  in such a manner that O- and/or S-atoms are not linked directly to one another, and wherein one or more H-atoms may also be replaced by F or Cl, or denotes  $P-(Sp-X)_n-$ ,

$Sp$  is a spacer group with 1 to 20 C-atoms,

$P$  is a polymerizable group,

$X$  is  $-O-$ ,  $-S-$ ,  $-CO-$ ,  $-COO-$ ,  $-OCO-$ ,  $-CO-NR^0-$ ,  $-NR^0-CO-$ ,  $-NR^0-$  or a single bond,

$n$  is 0 or 1,

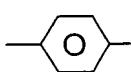
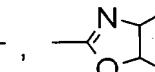
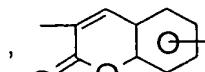
$R^0$  is H or alkyl with 1 to 5 C-atoms,

$A^1$  is 1,4-phenylene, wherein 1, 2, 3 or 4 H-atoms may be replaced by F or Cl, or a single bond,

$Q$  is  $-O-$ ,  $-S-$ ,  $-NR^0-$  or  $-N\backslash(X-Sp)_n-P$ ,

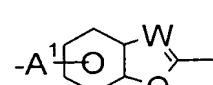
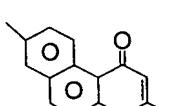
W is  $-\text{CH}=$ ,  $-\text{N}=$  or  $-\text{CO}-\text{CH}=$ ,

$A^2$  is 1,4-phenylene or 2,5-thiophene, wherein in each case one or more H-atoms may be replaced by F or Cl, or denotes a single bond,

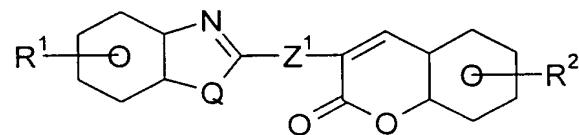
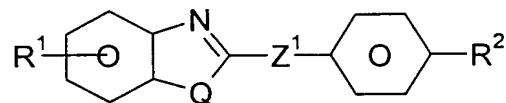
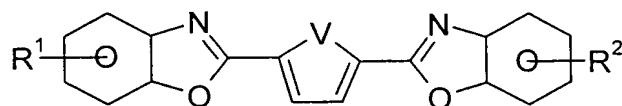
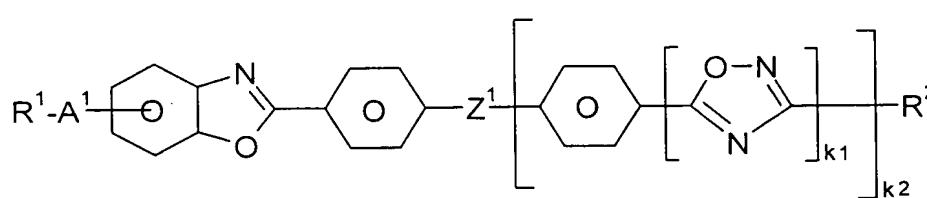
$A^3$  is  ,  ,  or  , wherein one or more H-atoms can be replaced by F or Cl,

$Z^1$  is  $-\text{CH}=\text{CH}-$ ,  $-\text{CF}=\text{CH}-$ ,  $-\text{CH}=\text{CF}-$ ,  $-\text{CF}=\text{CF}-$  or a single bond

with the proviso that

- a) the compounds of formula I contain one, two or more groups  $-(\text{X}-\text{Sp})_n-\text{P}$ ,
- b) if W denotes  $-\text{CO}-\text{CH}=$ , then  denotes 
- c) if W is  $-\text{N}=$ , Q is  $-\text{O}-$ ,  $A^2$  and  $Z^1$  are a single bond,  $A^3$  is 1,4-phenylene and  $R^2$  is  $\text{P}-(\text{Sp}-\text{X})_n-$  then  $R^1$  is an achiral group,
- d) if W is  $-\text{N}=$ , Q is  $-\text{O}-$ ,  $A^2$  and  $A^3$  denote 1,4-phenylene and  $Z^1$  is a single bond then  $A^1$  is a single bond.

2. (Original) Compounds according to claim 1 wherein W denotes  $-N=$ .
3. (Original) Compounds according to claim 1 wherein W denotes  $-CH=$  and Q is  $-O-$ .
4. (Original) Compounds according to claim 2 selected of the following subformulae



wherein

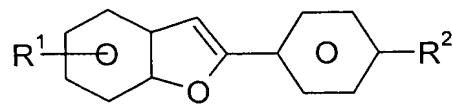
$k_1, k_2$  are independently of each other 0 or 1,

$V$  is  $-S-$  or  $-CH=CH-$  and

$R^1, R^2, Q$ ,  
 $Z^1$  and  $A^1$  are defined as in claim 1,

with the proviso that if  $Z^1$  denotes a single bond,  $k_1 = 0$  and  $k_2 = 1$ , then  $A^1$  is a single bond.

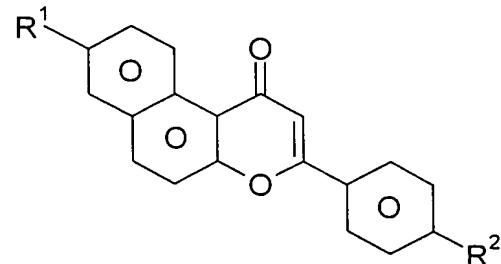
5. (Original) Compounds according to claim 3 of the subformula Ie



Ie

wherein R<sup>1</sup> and R<sup>2</sup> are defined as in claim 1.

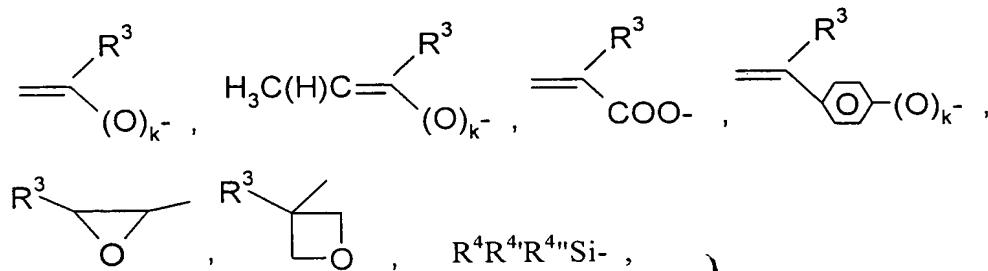
6. (Original) Compounds according to claim 1 of the subformula If



If

wherein R<sup>1</sup> and R<sup>2</sup> are defined as in claim 1.

7. (Currently Amended) Compounds according to ~~one of the preceding claims 1 to 6~~ claim 1 wherein P is selected from



wherein

R<sup>3</sup> is H, Cl or alkyl with 1 to 5 C-atoms,

R<sup>4</sup>, R<sup>4'</sup>, R<sup>4"</sup> are independently of each other -Cl, -O-alkyl and/or -O-CO-alkyl with alkyl having 1 to 5 C-atoms and

k is 0 or 1.

8. (Currently Amended) Polymerizable mixture comprising at least one compound according to ~~one of the claims 1 to 7~~ claim 1.

9. (Original) Polymerizable mixture according to claim 8 further comprising at least one polymerizable mesogenic compound of formula II



wherein

P is a polymerizable group,

Sp is a spacer group having 1 to 20 C-atoms,

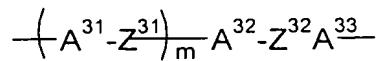
X is a group selected from -O-, -S-, -CO-, -COO-, -OCO-, -O-COO-, -SO<sub>2</sub>-O-, -O-SO<sub>2</sub>- or a single bond,

n is 0 or 1,

R<sup>21</sup> is H or an alkyl radical with up to 25 C atoms which may be unsubstituted, mono- or polysubstituted by halogen or CN, it being also possible for one or more non-adjacent CH<sub>2</sub> groups to be replaced, in each case independently from one another, by -O-, -S-, -NH-, -N(CH<sub>3</sub>)-, -CO-, -COO-, -OCO-, -OCO-O-, -S-CO-, -CO-S- or -C≡C- in such a manner that oxygen atoms are not linked directly to one another, or alternatively R<sup>21</sup> is halogen, cyano or has independently one of the meanings given for P-(Sp-X)<sub>n</sub>-,

MG is a mesogenic or mesogeneity supporting group.

10. (Original) Polymerizable mixture according to claim 9 wherein MG is a mesogenic or mesogeneity supporting group of formula III



III

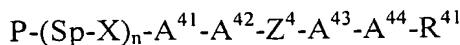
wherein

$A^{31}$ ,  $A^{32}$ ,  $A^{33}$  being independently from one another 1,4-phenylene in which, in addition, one or more CH groups may be replaced by N, 1,4-cyclohexylene in which, in addition, one or two non-adjacent  $CH_2$  groups may be replaced by O and/or S, 1,4-cyclohexenylene or naphthalene-2,6-diyl, it being possible for all these groups to be unsubstituted, mono- or polysubstituted with halogen, cyano or nitro groups or alkyl, alkoxy or alkanoyl groups having 1 to 7 C atoms wherein one or more H atoms may be substituted by F or Cl,

$Z^{31}$ ,  $Z^{32}$  being independently from one another -O-, -CO-, -COO-, -OCO-, -SO<sub>2</sub>-O-, -O-SO<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH=CH-, -C≡C-, -CH=CH-COO-, -OCO-CH=CH- or a single bond and

$m$  is 0, 1 oder 2.

11. (Currently Amended) Polymerizable mixture according to claim 8, ~~9 or 10~~ further comprising at least one polymerizable and photoorientable compound.
12. (Original) Polymerizable mixture according to claim 11 characterized in that the polymerizable and photoorientable compound is denoted by the formula IV



IV

wherein

$P$  is a polymerizable group,

$Sp$  is a spacer group having 1 to 20 C-atoms,

$X$  is a group selected from -O-, -S-, -CO-, -COO-, -OCO-, -O-

COO-, -SO<sub>2</sub>-O-, -O-SO<sub>2</sub>- or a single bond,

n is 0 or 1,

A<sup>41</sup>, A<sup>42</sup>,  
A<sup>43</sup>, A<sup>44</sup> are independently of each other 1,4-phenylene, wherein 1, 2, 3 or 4 H-atoms may be replaced by F or Cl,

A<sup>41</sup>, A<sup>44</sup> may in addition to the above given meaning denote independently of each other a single bond,

Z<sup>4</sup> is -N=N-, -CH=CH- or  $\left( \text{O} \right)_{s_1} \left( \text{CH}_2 \right)_{s_2} \text{O-CO-CH=CH-}$   
with s1 being 0 or 1 and s2 being 0 to 6,

R<sup>41</sup> is H, halogen, NO<sub>2</sub>, CN, SCN, straight chain, branched or cyclic alkyl with 1 to 25 C-atoms wherein one or more CH<sub>2</sub> groups can also be replaced by -O-, -S-, -NR<sup>0</sup>-, -CH=CH-, -C≡C- in such a manner that O- and/or S-atoms are not linked directly to one another, and wherein one or more H-atoms can also be replaced by F or Cl, or denotes P-(Sp-X)<sub>n</sub>-.

13. (Currently Amended) Polymer material obtainable by polymerizing a polymerizable mixture according to ~~one of the claims 8 to 12~~ claim 8.
14. (Original) Polymer material according to claim 13 obtainable by a process comprising the following steps
  - a) forming a thin layer of the polymerizable material,
  - b) aligning the molecules of the compounds of the mixture in the thin layer into a uniform orientation or a patterned orientation such that in each pattern the orientation is uniform,
  - c) polymerizing said polymerizable material.

15. (Currently Amended) Use of a compound according to ~~one of the claims 1 to 7~~  
~~claim 1 or of a polymerizable mixture according to one of the claims 8 to 12~~  
for the manufacture of photoluminescent and/or electroluminescent polymer  
materials.
16. (Currently Amended) Use of a polymer material according to claim 13 ~~or 14~~ as  
a photo- and/or electroluminescent material in a light emitting device, an  
optical or electrooptical display element.
17. (Currently Amended) Light emitting device comprising a polymer material  
according to claim 13 ~~or 14~~ as a photo- and/or electroluminescent material.
18. (Currently Amended) Optical or electrooptical display element comprising a  
polymer material according to claim 13 ~~or 14~~ as a photo- and/or  
electroluminescent material.
19. (Newly Added) Use of a polymerizable mixture according to claim 8 for the  
manufacture of photoluminescent and/or electroluminescent polymer  
materials.